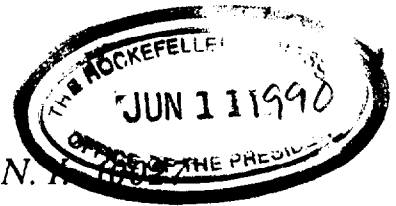


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Columbia University in the City of New York | New York, N. Y.

DEPARTMENT OF BIOLOGICAL SCIENCES

SHERMAN FAIRCHILD CENTER  
FOR THE LIFE SCIENCES

6 June 1990

Professor Joshua Lederberg  
President  
The Rockefeller University  
1230 York Avenue  
New York, NY 10021

Dear Professor Lederberg;

Thank you for your letter of 29 May and your kind comments on my recent paper in the American Zoologist.

Although I have long been interested in general principles of comparative biology, I have not undertaken any detailed and systematic historical analysis. Hence, I am not able to assist you in finding the source of the statement in your letter. I could well imagine someone making this statement about comparative analyses in biology, because one of the goals in comparative studies would be to investigate differences between organisms. Another, and closely related goal, is an efficient way to summarize information about diverse organisms. Thus with the help of a good classification, one does not have to repeat all of the information about the morphology, physiology, development, etc. known about each species. But, I would not agree that comparative studies in biology focus on the differences between organisms. This is one aspect of comparative analyses in biology, but for many types of studies, one is equally interested in the similarities between organisms. Understanding of similarities provide the foundation for the types of studies you have listed under "b", "d", "e" "f" and "g". Indeed all of medical research on animal models is founded on the similarities between these animal models and humans in the biological properties being studied. And it is critical to know whether extrapolation from the results on a particular animal model to humans is valid.

Your analysis of comparative study in biology in the paper you included in your letter is an excellent one, and far better than most I have read in preparation of my paper on "Principles of Biological Comparison". The list of the goals of comparative studies on page 3 quite complete. I regret that I did not know of this paper when I prepared the manuscript to my paper as I would certainly have cited it.

x → Bock (x)  
✓ 6/15/92

My interests in comparative biology continue and I look forward to discussing these ideas with you when you join the department. I have not given much thought to doing a detailed historical analysis of comparative studies in biology, but this could be most interesting. In connection with this, I know little about Professor James McGregor as his career at Columbia was well before my time. I do know that his course in comparative anatomy at Columbia was the foundation for Professor Romer's text book on The Vertebrate Body, which I still use in my undergraduate morphology course. Because of the great success of Romer's text, Professor Gregory had a major, although indirect, impact on the teaching of comparative anatomy in North America. But I know nothing about the published papers of Professor McGregor, and should look into these. I know far more about his contemporary, Professor W.K. Gregory, who was more closely associated with the American Museum of Natural History. What would be of some interest is to learn something about the professional interactions between these two men.

✓ I enclose several of my papers dealing directly and indirectly with principles of comparative biology. I hope that these are of some interest and use to you. Please contact me if I can be of any additional assistance to you, and I look forward to meeting you when you join the Biology Department.

With best regards,

Sincerely yours,

Walter Bock

✓ Thank you!

re -

Gregory - McGregor.

You might ask John A. Moore  
at UCR / Riverside.

Columbia Archives might have some  
of their correspondence.

J

Walter Bock  
Professor of Evolutionary  
Biology